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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,959	10/19/2005	Akihiko Hiratsuka	740250-894	9879
78198 7590 Studebaker & Brackett PC 1890 Preston White Drive Suite 105 Reston, VA 20191			EXAMINER FOX, JOHN C	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 08/12/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/553,959

**Applicant(s)**

HIRATSUKA ET AL.

**Examiner**

John Fox

**Art Unit**

3753

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Minami et al.

Minami et al teach a semiconductor manufacturing system where sheet 13 of Minami et al can be an aluminum plate of high thermal conductivity, which would be a direct heating element, and heaters 12 would inherently provide radiant heating to the interior of the main body. Figure 2 shows the components 12, 13 as extending axially beyond the end face of body 2 to provide radiant heating to the flow path forming sections not in direct contact with component 13. The portion of the piping, unlabelled, between the body 2 and the couplings 6, will have a joint in it, typically a weld joint, which will be heated by radiant heat from heater 12.

Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that the heaters of Minami et al will not provide radiant heat to the flow path forming sections not in direct contact with component 13. The Examiner is of the opinion that applicant's position is contrary to what is explicitly shown in Figure 2 of Minami et al. Applicant argues that the couplings 6 cannot be read as part of the piping system. The Examiner disagrees. Fluid is brought to the body 2 through tubular conduits and away from the body 2 through tubular conduits. Arbitrarily designating part of the tubular conduits a flow path forming section and another part a fluid piping system is not a patentable step in the art. Applicant argues that the portion of the coupling 6 extending outside the heater unit will be cooler than the portion inside the unit.

However, the portion of the instant piping system outside the heater unit will also be cooler than the portion inside the unit. The recited joint is inside the heater unit.

Claims 1-3 are, in the alternative, rejected under 35 U.S.C. 103(a) as being unpatentable over Minami et al in view of Yamaji et al.

Minami et al teach a semiconductor manufacturing system where sheet 13 of Minami et al can be an aluminum plate of high thermal conductivity, which would be a direct heating element, and heaters 12 would inherently provide radiant heating to the interior of the main body. However, the main body does not cover the couplings 6. Yamaji et al show another semiconductor manufacturing fluid system with heat tape 11 extending the entire length of the device, including the pipe end joint shown in Figure 1 and Yamaji et al is read as including the pipes which would conduct fluid to the gas stick. Both references teach the purpose of the heaters as for preventing the reliquification of the gas being transported, and it is believed that it is readily evident that the presence of a cold section is contrary to such purpose. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have made the main body and the heating elements of Minami et al of sufficient length to cover the entire device, such as the joints, as taught by Yamaji et al to more effectively prevent reliquification of the gas therein by eliminating cold sections.

Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that Yamaji et al does not provide radiant heat to the piping or tubular conduit leading to the valve blocks. Examiner is of the opinion that applicant's position is

contrary to what is explicitly shown in Figure 1 of Yamaji et al, where heater 11 is spaced from and confronting the piping and coupling.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912. The examiner can normally be reached on Monday-Saturday from 10am-6pm (Hoteling Program).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Fox/  
Primary Examiner  
Art Unit 3753